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| 41838 7590 03/25/2008<br>GENERAL ELECTRIC COMPANY (PCPI)<br>C/O FLETCHER YODER<br>P. O. BOX 692289<br>HOUSTON, TX 77269-2289 |             |                         |                           |                  |
| EXAMINER<br>SUERETH, SARAH ELIZABETH                                                                                         |             |                         |                           |                  |
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/812,338  
Filing Date: March 29, 2004  
Appellant(s): PATIL ET AL.

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Patrick S. Yoder  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 2/4/08 appealing from the Office action mailed 3/16/07.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The first ground of rejection should state as follows: Claims 1-7, 14, 16-20, 22-28, 35-43 are rejected as obvious over Melink in view of Bowen further in view of Morton.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

|           |        |        |
|-----------|--------|--------|
| 6,170,480 | MELINK | 1-2001 |
| 4,146,016 | BOWEN  | 3-1979 |
| 6,349,716 | MORTON | 2-2002 |
| 5,236,595 | WANG   | 8-1993 |
| 6,521,859 | JENSEN | 2-2003 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 1-7, 14-20, 22-28 and 35-43 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Melink in view of Bowen, further in view of Morton.**

Melink discloses the claimed invention: a sensor (76,94,96,82,102) for detecting smoke and combustion products (col. 5, lines 66-67) above an active zone of a cooktop (18), an air moving device (50), control circuitry (70,72) coupled to the sensor and the air moving device, for regulating operation of the air moving device (col. 6, lines 27-31).

Regarding claims 3,23, and 36, Melink discloses that the sensor (82) can be an IR temperature sensor (col. 4, lines 25-30).

Regarding claims 4, 18,26,27,39, and 40, Melink discloses a temperature sensor (76), and also a humidity sensor (col. 9, lines 4,5).

Regarding claims 5 and 20, the controller has several predefined programs activated by the user (col. 10, lines 48-51) via a user interface (134).

Regarding claim 6, the controller is configured to respond to the temperature and humidity sensors (col. 9, lines 1-3).

Regarding claims 7 and 19, the controller sends and receives signals (col. 10, lines 41-44), and is read as capable of receiving at least one of the claimed signals.

Regarding claims 22 and 28, Melink discloses that the controller is configurable by the user (col. 10, lines 57-60), which is read as meeting the claimed limitation "configurable based on installation location".

Regarding claim 35, the Melink apparatus has the claimed structure, and is disclosed as reducing acoustic noise by varying the fan speed (col. 3, lines 25-30).

Regarding claim 41, the controller uses set point references; an example being a maximum temperature beyond which fire control is activated (col. 10, lines 12-15).

Regarding claim 42, Melink discloses varying the volume ramp over time intervals (col. 3, lines 25-30).

Regarding the table of claim 43, Melink discloses that the controller stores a set of values for volume rates (col. 7, lines 40-45), which is regarded as the claimed look up table.

Melink does not discuss operating in either recirculation or exhaust mode utilizing an air flow direction device connected to the controller. Melink discloses operating in an exhaust mode only, utilizing supplemental air from outside to resupply the air inside the kitchen.

However, Melink discusses the difficulty of maintaining the interior temperature of the kitchen during the winter, as continuing to draw in cold outside air would cause the kitchen inside temperature to become uncomfortable (col. 9, lines 37-43).

Bowen solves this problem by providing an adjustable damper (76) movable between an exhaust (Fig. 2) and recirculation (Fig. 3) position.

Bowen teaches that providing a recirculation air path inside the hood allows for the heat to be conserved in the kitchen (col. 3, lines 63-68 and col. 4, lines 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Melink apparatus by adding an adjustable damper as taught by Bowen in order to conserve heat in the kitchen (Bowen, col. 4, lines 1-2).

As discussed above, Bowen does not suggest that the damper is automatically controlled. The damper is disclosed to be manually movable between two positions (col. 4, lines 31-32).

Morton discloses: a ventilation system (10) including a sensor (60), an air moving device (33); an air flow direction control device (34) for directing the air between exhaust and recirculation pathways (col. 2, lines 36-40); and control circuitry (62) for regulating the position of the flow control device based upon signals from the sensor (col. 3, lines 47-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Melink in view of Bowen apparatus by automating movement of the damper as taught by Morton in order to allow the damper to be automatically adjusted when triggered by a temperature sensor (col. 3, lines 50-53).

The method claims 14-20 and 35-43 are rejected because the prior art apparatus discussed above performs the claimed method steps.

**Claims 8, 9, 11-13, 21, 29, 30, and 32-34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Melink in view of Bowen, further in view of Morton, as discussed above, and further in view of Wang et al.**

As discussed above, the Melink in view of Bowen and Morton combination does not include a grease filter.

Wang et al shows a filter (col. 6, lines 11-24) for the purpose of purifying air (col. 6, line 9). The filter is taught to remove grease (col. 6, line 8), odor (col. 6, line 9), and bacteria (col. 0, line 8). The air purification device also includes UV air purification (col. 6, lines 28, 29), which is read as an active device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Melink in view of Morton and Bowen apparatus with the Wang air purification device, in order to remove undesirable constituents (col. 5, lines 16, 17).

Claim 21 is rejected because the prior art apparatus discussed above performs the claimed method step.



**Claims 10 and 31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Melink in view of Bowen, further in view of Morton and Wang as discussed above, and further in view of Jensen.**

As discussed above, Wang et al discloses a UV air purification device, but not a corona discharge device.

Jensen teaches that both UV air purification devices and corona discharge devices work to irradiate air (col. 1, lines 66, 67).

The courts have held that substituting known equivalents for the same purpose is not a patentable modification (In re Fout, 675 F.2d 297, 213 USPQ 532 (CCPA 1982), also MPEP 2144.06).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Melink/Bowen/Morton/Wang apparatus by substituting the Jensen corona discharge device for the UV air purification device, in order to produce high quantities of ozone at a low cost (Jensen col. 2, lines 11-15).

Claim 31 is rejected because the prior art apparatus discussed above performs the claimed method step.

**(10) Response to Argument**

**Independent Claims Do Not Require A Chemical Analyzer**

Appellant appears to argue that the claims require a sensor including some type of a gas analyzer to determine the precise chemical composition of an airflow mixture above a cooktop. Appellant argues that the independent claims are not met by a temperature sensor that triggers an airflow control device (appeal brief page 10, section b). However, this position is inconsistent with the claims and the specification.

Appellant states in the specification "vapors, odors, chemical compositions and so forth will be created or originate from one or more active zones of the cooktop", and "the sensor is configured to receive inputs regarding the characteristics of the air above and adjacent an active zone of the cooktop" (emphasis added, see paragraph 22). The sensed inputs *may* include a chemical analysis of the mixture (bottom of paragraph 22), or temperature or humidity sensors (paragraph 23).

The independent claims require "a sensor for detecting a chemical composition over an active zone of a cooktop". Appellant has defined the phrase "a chemical composition" to mean cooking fumes, vapors, smoke, and combustion byproducts (appellant's brief, page 9, first full paragraph). The examiner has interpreted this claim limitation to require a sensor that is capable of detecting the presence of cooking vapors. A temperature sensor is capable of performing this limitation, as evidenced by the dependent claim 3, which further limits the independent claim by acknowledging that

the sensor could be a temperature sensor or an electrochemical gas sensor among others.

Although not required by the claims, Melink does disclose using a chemical gas sensor (82) to trigger operation of the ventilation hood (column 7, lines 10-47).

**Rejection of Claim 22 Was Proper**

Claim 22 requires that the controller be "configurable based upon site specific factors". Appellant has erroneously argued claim 22 as if it included the limitations of dependent claim 28, but no separate arguments are presented for either claim 22 or claim 28.

The examiner notes that Melink explicitly discloses configuring the controller to account for the outside temperature (col. 10, lines 48-53), which is regarded as a "site specific factor". Contrary to appellant's arguments, the claim does not require adjusting the controller to consider any of the factors listed.

Regarding claim 28, configuring the controller to include the outside temperature is regarded as customizing the controller based on the "installation location".

Additionally, the examiner notes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to make an oven hood in a particular size to fit in a particular installation location.

**Rejection of Claim 35 Was Proper**

Regarding claim 35, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The Melink controller controls the speed of the fan, which obviously affects the amount of noise produced by the fan. There is no claimed structural difference between appellant's controller and the Melink controller, and both operate in the same manner to control the speed of the fan based on a sensed input. Varying the level of noise produced by the fan will inherently occur as the fan speed is varied.

**Separate Arguments Not Presented**  
**for Second and Third Grounds of Rejection**

The examiner notes that no additional arguments were presented for the rejections further in view of Wang or Jensen.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Sarah Suereth/

Examiner, Art Unit 3749

Conferees:

/Steven B. McAllister/

Supervisory Patent Examiner, Art Unit 3749

/Janet C. Baxter/

TC 3700 TQAS